REMARKS

This paper is filed in response to the Office Action mailed December 11, 2007.

Claims 44-69 are pending. Claims 44-69 are rejected under a statutory-type double-patenting rejection under 35 U.S.C. § 101 as being the same as claims 122-147 of Application No. 09/153,781. Claims 44-49, 52, and 65-68 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,299,810 to Pierce *et al.* (hereinafter referred to as "Pierce").

Claim 50 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of U.S. Patent No. 5,917,725 to Thacher *et al.* (hereinafter referred to as "Thacher"). Claims 51, 53-64, and 69 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of an article entitled "A Low-Cost Force Feedback Joystick and its Use in PC Video Games" authored by Ming Ouhyoung et al, and published in the IEEE Transactions on Consumer Electronics, Vol. 41, No. 3, Aug. 1995 (hereinafter referred to as "Ouhyoung") and an article entitled "MagicMouse: Tactile and Kinesthetic Feedback in the Human-Computer Interface using an Electromagnetically Actuated Input/Output Device" authored by Kelley et al (hereinafter referred to as "Kelley").

Claims 44, 53, 59, 65 and 69 have been amended. No new matter is added by these amendments, and support for the amendments may be found in the specification and claims as originally filed.

Claims 44-69 - § 101, double patenting

Applicant respectfully traverses the provisional rejection of claims 44-69 under 35 U.S.C. § 101, second paragraph, for claiming the same invention of claims 122-147 of co-pending Application No. 09/153,781. Claims 44-69 have been or will be deleted from co-pending Application No. 09/153,781. Therefore, Applicant respectfully requests the Examiner withdraw the rejection to claims 44-69.

Claims 44-49, 52, and 65-68 - § 102(b) - Pierce

Applicant respectfully traverses the rejection of claims 44-49, 52, and 65-68 under 35 U.S.C. § 102(b) as being anticipated by Pierce.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Because Pierce does not disclose "the second virtual object generated by a remote processor," as recited in claim 44, or "the second processor being remote to the first processor," as recited in claim 65, Pierce does not anticipate claims 44 and 65, from which claims 45-49, 52, and 66-68 depend.

Pierce discloses computers which produce or display objects created by local computers. Specifically, the local computers in Pierce are electrically connected via a common RAM: "Once each computational cycle, each computer sends its position signals to a common random access memory (RAM) which is electrically connected to each computer. After sending its position signals to the RAM, each computer polls the RAM to determine the positions and orientations of the vehicle and drones controlled by the opposite computer." Pierce, columns 2-3, lines 65-69, 1-3. Polling a local RAM to create a virtual object generated by a local, electrically connected computer is not the same as receiving an object generated by a remote processor.

As one example of the contrast between a direct, electrical connection such as the one in Pierce, and receiving information from a "remote processor" such as in claim 44, the device in the current application may be "subject to some transmission ("latency") delays on networks such as the Internet, but permits remote interactivity." *See* current application, paragraph 15. Pierce, however, does not teach that reading and writing to a common RAM would be possible over a remote connection.

Because reading and writing to a local RAM every computational cycle is not the same as "receiving a first information from a remote computer," Pierce does not disclose every element recited in claims 44 and 65. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 44 and 65.

Because claims 45-49, 52, and 66-68 depend from and further limit claims 44 and 65, claims 45-49, 52, and 66-68 are not anticipated by Pierce for at least the same

reasons. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 44-49, 52, and 65-68.

Claims 50 – § 103(a) – Pierce in view of Thacher

Applicant respectfully traverses the rejection of claims 50 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Thacher.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), the combined reference must teach or suggest each and every element of the claimed invention. *See* M.P.E.P. § 2143.03. Further, "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP 2143.01 (citing In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Because one of ordinary skill in the art would not be motivated to modify Pierce to incorporate the device of Thacher, claim 44, from which claim 50 depends, is patentable over the combined references.

As discussed above, Pierce does not disclose "the second virtual object generated by a remote processor," as recited in claim 44. Thacher, however, suggests communication with a remote computer.

Modifying the Pierce device to include communication with a remote computer fundamentally alters the mode of operation of the Pierce device. The device of Pierce is a vehicle simulator with tandem surfaces for a first and second user. *See* Pierce, Abstract. The vehicle simulator attempts to "provide multi-sensory indications of events that are initiated by another operator" (i.e. the other user). *See* Pierce, Abstract, column 1, lines 61-63. In order to detect events initiated by another operator, the computers in Pierce poll a common RAM, which each computer is electrically connected to. *See* Pierce, column 2, lines 65-68. Specifically, Pierce teaches that "once each computational cycle, each computer sends its position signals to a common random access memory (RAM) which is electrically connected to each computer." *See* Pierce, column 2, lines 65-68. Because the computers of Pierce are electrically connected, they must be located together, in one location.

Pierce offers no teaching, suggestion, or motivation to update each computer's position signals in any other fashion. On the contrary, locating each computer in a remote location could introduce network delays which would destroy the mode of operation of the Pierce device. In contrast to polling a local RAM every computational cycle, transmitting and receiving information from a remote computer "may be subject to some transmission ("latency") delays on networks such as the Internet." Current Application, Paragraph 15. Pierce, however, does not teach or suggest updating position signals which may be subject to delays uncommon to a direct, local electrical connection. Such delays, which are foreseeable over a remote connection, would destroy Pierce's ability to provide indications of events initiated by another computer. Thus, there is no suggestion, motivation, or teaching in Pierce to allow users to interact over any distance beyond the limitations of direct electrical communication, which is required by the invention of Pierce. *See* Pierce, column 2, lines 65-68.

Modifying the Pierce device to communicate with a remote computer over a network would fundamentally alter the mode of operation of the device, and thus, one of ordinary skill in the art would not be motivated to modify the Pierce device to receive information at a network interface. Therefore, claim 44 is patentable over the combination of Pierce and Thacher.

Because claim 50 depends from and further limits claim 44, claim 50 is patentable over the combination of Pierce in view of Thacher for at least the same reason as claim 44. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claim 50.

Claims 51, 53-64, and 69 – § 103(a) Pierce in view of Ouhyoung and Kelley

Applicant respectfully traverses the rejection of claims 51, 53-64, and 69 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Ouhyoung and Kelley.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), the combined reference must teach or suggest each and every element of the claimed invention. *See* M.P.E.P. § 2143.03. Further, "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose,

then there is no suggestion or motivation to make the proposed modification." MPEP 2143.01 (citing In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Because the combination of Pierce in view of Ouhyoung and Kelley does not teach or suggest "the second virtual object generated by a remote processor," as recited in claims 44, 53, 59, and 69, from which claims 51, 54-58, 60-64 depend, claims 44, 53, 59 and 69 are patentable over Pierce in view of Ouhyoung and Kelley.

As discussed above, Pierce does not teach or suggest the "second virtual object generated by a remote processor." The combination of Pierce, Ouhyoung and Kelley are introduced to teach or suggest "a local processor coupled to the actuator and the sensor." *See* Office Action, page 7. This does not cure the deficiency of Pierce.

Thus Pierce in view of Ouhyoung and Kelley does not teach or suggest "second virtual object generated by a remote processor" and claims 44, 53, 59, and 69 are patentable over the combined references. Applicant respectfully requests the Examiner withdraw the rejection of claims 53, 59, and 69.

Because claims 51, 54-58, 60-64 depend from and further limit one of claims 44, 53, 59, and 69, claims 51, 54-58, 60-64 are each patentable over the combined references for at least the same reasons. Applicant respectfully requests the Examiner withdraw the rejection of claims 51, 54-58, 60-64.

CONCLUSION

Applicant respectfully asserts that all pending claims are allowable and Applicant respectfully requests the allowance of all claims.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Respectfully submitted,

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